

**HIGH REFLECTOR TUNABLE STRESS COATING, SUCH AS FOR A
MEMS MIRROR**

ABSTRACT OF THE DISCLOSURE

An optical device having a high reflector tunable stress coating includes a micro-electromechanical system (MEMS) platform, a mirror disposed on the MEMS platform, and a multiple layer coating disposed on the mirror. The multiple layer coating includes a layer of silver (Ag), a layer of silicon dioxide (SiO_2) deposited on the layer of Ag, a layer of intrinsic silicon (Si) deposited on the layer of SiO_2 , and a layer of silicon oxynitride (SiO_xN_y) deposited on the layer of Si. The concentration of nitrogen is increased and/or decreased to tune the stress (e.g., tensile, none, compressive).